



Wisconsin Department of Transportation

Division of Transportation Systems Development

Bureau of Project Development
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December 11, 2017

NOTICE TO ALL CONTRACTORS:

Proposal 12: 2195-03-70, WISC 20180 009
West Wells Street, City of Milwaukee
Milwaukee River Bridge B-40-544
USH 18
Milwaukee County

Letting of December 12, 2017

This is Addendum No. 04, which provides for the following:

Special Provisions:

Added Special Provisions	
Article No.	Description
78	Concrete Surface Repair at Railing Post, SPV.0025.501

Schedule of Items:

Added Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
SPV.0025.501	Concrete Surface Repair at Railing Post	CF	0	95	95

Deleted Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
509.0302	Preparation Decks Type 2	SY	21	-21	0

Plan Sheets:

Revised Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
81	Estimated Bridge Quantities/Design Data (Bid Item Change)
135	2 Line Aluminum Railing Details (Updated Notes)

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

Mike Coleman

Proposal Development Specialist
Proposal Management Section

ADDENDUM NO. 04

2195-03-70

December 11, 2017

Special Provisions:

78. Concrete Surface Repair at Railing Post, Item SPV.0025.501

A Description

This special provision describes removing unsound and sound concrete and installing new concrete at the location of new railing bases in the existing concrete deck to the limits shown on the plans. Additional steel reinforcement and railing components will be paid for separately.

B Materials

Provide concrete in accordance with Section 502 and 509 of the standard specifications and these special provisions. Concrete shall match the color of the existing concrete being patched.

Provide masonry anchors as needed in accordance with section 502 of the standard specifications and these special provisions.

C Construction

Perform work in accordance with the applicable requirements of the standard specifications in general, and sections 501, 502, and 509 in particular, except as modified herein or shown on the plans. Before starting the repair, conduct a survey of the concrete surfaces and mark areas requiring repair for engineer's inspection. Notify the engineer 48 hours in advance of the inspection. Remove concrete only from locations shown on the plans and approved by the engineer. Do not remove more concrete than detailed unless specifically approved by the engineer. This bid item will be used only for the removal and replacement of concrete at the railing bases. Define the limits of removal on the exposed surface with 1-inch deep saw cut. Remove concrete in such a way that removal is bounded by straight lines. Remove concrete to a minimum 1 inch below the depth of new rebar.

For chipping off old concrete surfaces, use air chippers or breakers that weigh no more than 35 pounds and are equipped with flat, chisel-type points with a cutting edge not less than 3/4" inch or greater than 3 inches wide. After reaching the top of the reinforcing steel do not use hammers heavier than 15 pounds within one inch of the steel. Dispose of removed concrete.

Establish horizontal and vertical controls to serve as a reference for measuring the thickness of concrete removed.

D Measurement

The Department will measure Concrete Surface Repair at Railing Post by the cubic foot acceptably completed, measured as the exposed surface area following removal. The depth of removal will be measured as the distance from the existing surface to the prepared final surface. Each repair area or volume will be measured only once for payment purposes, irrespective of the number of operations for removing the concrete from that area.

E Payment

The Department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0025.501	Concrete Surface Repair at Railing Post	CF

Payment is full compensation for removing sound and unsound concrete; blast cleaning existing reinforcement as necessary; masonry anchors, furnishing and placing concrete; repairing damaged epoxy coating on existing rebar, and for furnishing all labor, scaffolding, formwork, tools, materials, equipment, and incidentals necessary to complete the work.

Schedule of Items

Attached, dated December 11, 2017, are the revised Schedule of Items Pages 2 and 9.

Plan Sheets

The following 8½ x 11-inch sheets are attached and made part of the plans for this proposal:
Revised: 81 and 135

END OF ADDENDUM

Addendum No. 04
ID 2195-03-70
Revised Sheet 81
December 11, 2017

DESIGN SPECIFICATIONS

AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 17TH EDITION.
AASHTO STANDARD SPECIFICATIONS FOR MOVABLE HIGHWAY BRIDGES, SECOND EDITION,
2007, AND INTERIMS THROUGH 2017.

DESIGN DATA

CONCRETE
= 160 PCF
= 4000 PSI
= 20 FSW
= 3.500 PSI
EXST. TUBULAR RAILING = 74 PLF
2-LINE ALUMINUM RAILING = 37 PLF

LIVE LOAD

DESIGN LOADING: HS-20
INVENTORY RATING: HS-20
MINIMUM PERMIT LOAD: HS-20
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KPS

MATERIAL PROPERTIES:

CONCRETE MASONRY (SUPERSTRUCTURE)
CONCRETE MASONRY, LIGHTWEIGHT (SUPERSTRUCTURE)
CONCRETE MASONRY (OTHERS)
FC = 4000 PSI
FC = 4000 PSI
FC = 3500 PSI
FY = 60,000 PSI
FY = 50,000 PSI
FY = 36,000 PSI

TRAFFIC DATA

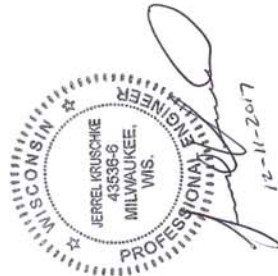
ADT (2011) = 9,500 VEHICLES/DAY
ADT (2017) = 11,500 VEHICLES/DAY
ROADWAY DESIGN SPEED = 55 MPH

HYDRAULIC DATA

800-YEAR FREQUENCY
= 14,800 CFS (SEWERPO)
= 4.8 FPS (SEWERPO)
= 58.7 IN/100 (SEWERPO)
HWSD = 56.7 IN/100 (SEWERPO)
WATERWAY AREA = 3,990 SF
DRAINAGE AREA = 690 SQ.M.
SCOUR OVERFLOWING = N/A
SCOUR CRITICAL CODE = B
ID-YEAR FREQUENCY
QD = N/A
LUL = N/A
HWSD = ELL 550J IN/100 (R29)

William C. Decker

12/10/17



NO.	DATE	BY	REVISION
1	12/10/17	WCD	BO ITEM CHANGE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-544

ESTIMATED BRIDGE QUANTITIES / DESIGN DATA

DRWING NO. DB.1

SHEET 3 OF 58

81

ESTIMATED BRIDGE QUANTITIES

ITEM NUMBER	BO ITEMS	UNIT	SUBSTRUCTURE			BRIDGE HOUSE	SUPERSTRUCTURE		TOTAL
			WEST ABUT.	PER 2 PER 1	EAST ABUT.		WEST APPROACH	EAST APPROACH	
203-0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STATION 40+36.34	LS					43		1
502-0100	CONCRETE MASONRY BRIDGES	CY	4		5		55		107
502-3100	EXPANSION DEVICE B-40-544	LS					205	141	465
502-4205	PROTECTIVE SURFACE TREATMENT	SY	81		10				169
505-0600	ADHESIVE ANCHORS NO.5 BAR	LB	750		800		6,400	4,940	21,460
506-3005	BAR STEEL REINFORCEMENT IN COATED STRUCTURES	LB					148	200	496
506-3015	WELDED STD SHEAR CONNECTORS 7/8 X 4-INCH	EACH						264	264
509-1000	WELDED STD SHEAR CONNECTORS 7/8 X 6-INCH	EACH						69	69
509-1500	JOINT REPAIR	SY	33		36				339
509-5100.S	CONCRETE SURFACE REPAIR	SF		294	39				625
509-5100.S	POLYMER OVERLAY	SY					375	250	625
509-5025.S	POLYMER OVERLAY	SY							408
509-5025.S	EPOXY INJECTION CRACK REPAIR	LB	6	106	276				2
509-5026.S	CORED HOLES 2-INCH DIAMETER	EACH							2
516-0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	5		6				11
517-0000	PAINTING EPOXY SYSTEM B-40-544	LS							1
517-0000.S	PREPARATION AND COATING OF TOP FLANGES B-40-544	LS							1
517-1010.S	CONCRETE STAINING B-40-544	SF	335	1,800	2,020	436	280	202	5,373
517-1800.S	STRUCTURE OVERPAINTING RECYCLED ABRASIVE B-40-544	LS							1
517-1800.S	STRUCTURE OVERPAINTING CLEANING AND PRIMING B-40-544	LS							1
517-3000.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-40-544	LS							1
517-6001	PORTABLE DECONTAMINATION FACILITY	EA							1
652-0210	CONDUIT RIGID NONMETALLIC SCHEDULE 40 1-INCH	LF					70	139	209
652-0220	CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/2-INCH	LF					70	28	98
652-0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF					112	59	171
652-0230	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 1/2-INCH	LF					5	5	5
652-6006	ANCHOR ASSEMBLIES, LIGHT PILES, AND STRUCTURES	EACH					8	5	13
SPV.0025.501	CONCRETE SURFACE REPAIR AT RAILING POST	SF					45	50	95
SPV.0035.501	LIGHTWEIGHT CONCRETE MASONRY	CY						20	20
SPV.0060.501	BEARING MAINTENANCE B-40-544	EACH					8	8	32
SPV.0060.502	REPLACING HOI STRENGTH BOLTS	EACH							385
SPV.0060.503	JUNCTION BOXES B086-INCH	EACH							1
SPV.0060.504	RIVERWALK EXPANSION JOINT	EACH							2
SPV.0085.501	RIVERWALK EXPANSION JOINT WITH COVER PLATE	EACH							2
SPV.0085.502	COUNTERWEIGHT BALLAST	LB						20,000	20,000
SPV.0090.501	BRIDGE STRUCTURAL STEEL	LB						31,325	31,325
SPV.0090.502	MARINE DOCK FENDERS	LF		176	148		87	88	324
SPV.0090.503	2 LINE ALUMINUM RAILING B-40-544	LF					131	94	373
SPV.0090.504	REMOVE, REPAIR, PAINT, AND REINSTALL EXISTING TUBULAR RAILING	LF					50		323
SPV.0105.501	1-INCH FIBERGLASS REINFORCED EPOXY GFR CONDUIT	LF							50
SPV.0105.502	BUMPER BEAMS	LS							1
SPV.0105.503	COUNTERWEIGHT MACHINERY	LS							1
SPV.0105.504	EQUALIZER MACHINERY	LS							1
SPV.0105.505	SPAN GUIDES	LS							1
SPV.0105.506	BRIDGE ELECTRICAL WORK	LS							1
SPV.0105.507	PACKAGED ENGINE GENERATOR	LS							1
SPV.0105.508	GENERATOR MECHANICAL WORK	LS							1
SPV.0105.509	BRIDGE HYDRAULIC SYSTEM	LS							1
SPV.0105.510	FIELD TEMPERATURE SURVEY	LS							1
SPV.0105.511	COUNTERWEIGHT BALANCING CALCULATIONS	LS							1
SPV.0105.512	TEMPORARY LEFT SPAN SHORING	LS							1
SPV.0105.513	LEFT SPAN ROADWAY JOINT	LS							1
SPV.0105.514	LEFT SPAN SOEWALK JOINT	LS							1
SPV.0105.515	REFURBISHING EXISTING NAME PLATES	LS							1
SPV.0165.501	NAME PLATE	LS							1
SPV.0165.502	FIBERGLASS SOEWALK FLOOR PLATES	SF					1,716		1,776
SPV.0165.503	METAL PLATES FOR BIKE LANES	SF					443		443

* ITEM IS CATEGORY 000

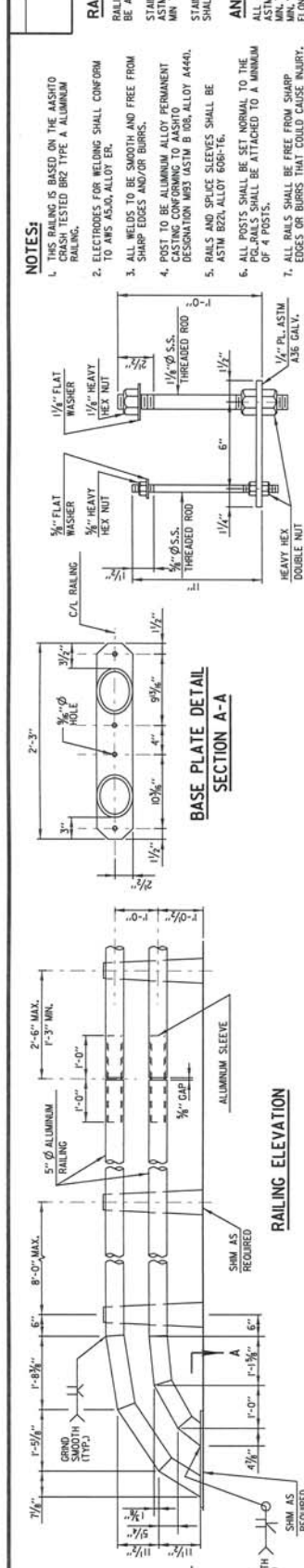
NON-BID ITEMS

NAME PLATE
NON-BUTTIROUS JOINT FALLER
POLYETHYLENE SHEETS
PREFORMED JOINT FALLER

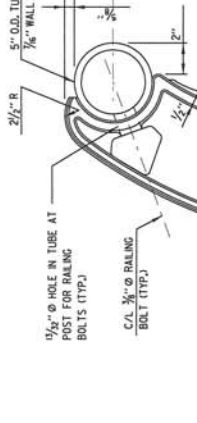
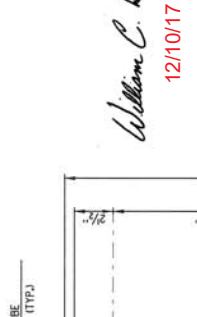
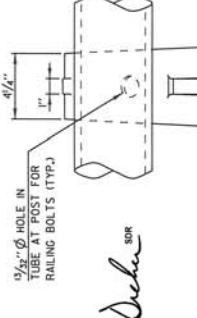
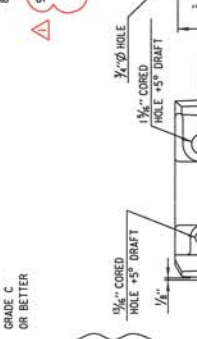
STATE PROJECT NUMBER
2195 - 03 - 70

NOTES:

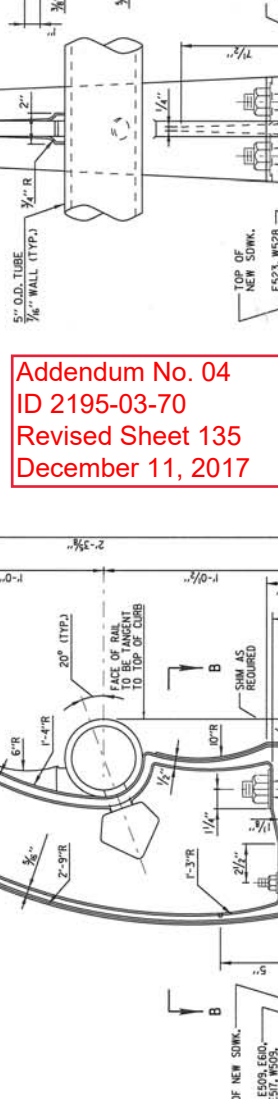
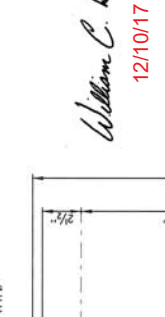
- THIS RAILING IS BASED ON THE ASHTO CRASH TESTED BR2 TYPE A ALUMINUM RAILING.
- ELECTRODES FOR WELDING SHALL CONFORM TO AWS A5.10 ALLOY ER.
- ALL WELDS TO BE SMOOTH AND FREE FROM SHARP EDGES AND/OR BURRS.
- POSTS TO BE ALUMINUM ALLOY PERMANENT FINISH. FINISH TO MATCH RAILING. DESIGNATION W65 L6M 1/2 ALLOY A444.
- RAILS AND SPICE SLEEVES SHALL BE ASTM B221 ALLOY 6061-T6.
- ALL POSTS SHALL BE SET NORMAL TO THE MINIMUM PG. WALLS SHALL BE ATTACHED TO A MINIMUM OF 4 POSTS.
- ALL RAILS SHALL BE FREE FROM SHARP EDGES OR BURRS THAT COULD CAUSE INJURY.
- HOLE FOR BOLTS IN RAILS ARE TO BE FIELD DRILLED TO INSURE PROPER FIT.
- ALL HEAVY HEX NUTS AND WASHERS SHALL BE STAINLESS STEEL UNLQ.
- NEOPRENE PADS SHALL HAVE A NOMINAL DIAMETER THICKNESS OF 60 ± 1.5
- SHM MATERIAL SHALL BE ASTM B209, ALLOY 1000-O.



BASE PLATE DETAIL SECTION A-A

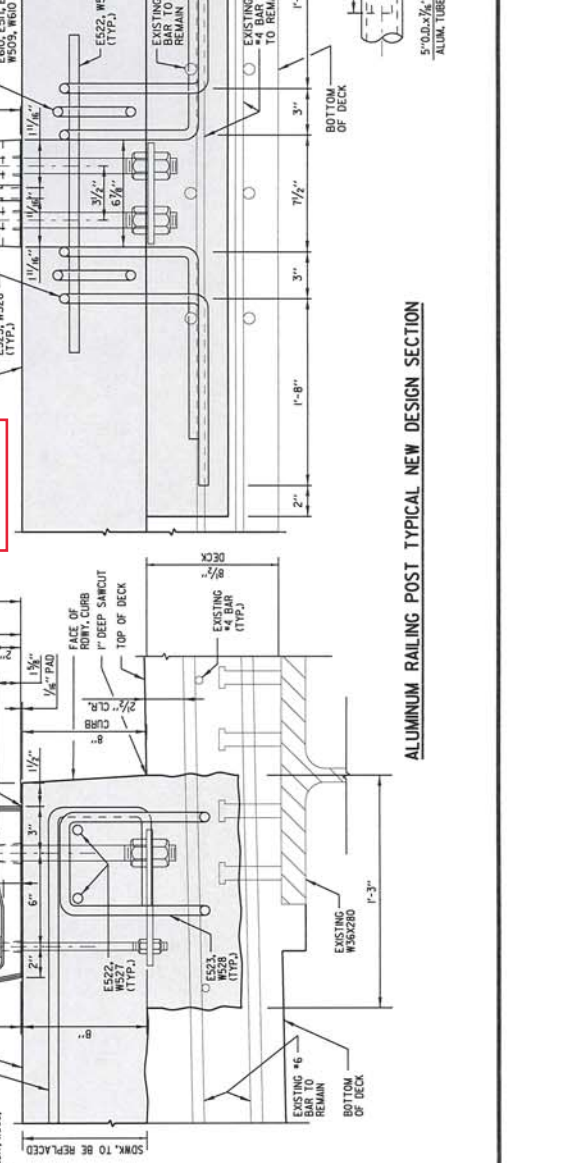


ANCHORAGE DETAIL



William C. DeLuca
12/10/17

Addendum No. 04
ID 2195-03-70
Revised Sheet 135
December 11, 2017



NOTE: PREFORMED PADS SHALL CONSIST OF COTTON FIBERS BONDED WITH NATURAL OR SYNTHETIC RUBBER. WEIGHT OF FIBER SHALL BE APPROX. 50% OF THE TOTAL WEIGHT OF THE PAD. ULTIMATE BREAKDOWN LIMIT OF THE PAD UNDER COMPRESSIVE LOADING SHALL BE AT LEAST 10,000 P.S.I.

RUBBER FIBER PAD

JERRAL KRUSCHKE
43539-G
MILWAUKEE, WIS.
PROFESSIONAL ENGINEER
12-11-2017

NO.	DATE	REVISION	BY
1		REVISED	DLT

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
STRUCTURE B-40-544
DRAWN BY: G.L.R. / C.B.B. / J.S.L. / B.S.L.
SHEET 57 OF 58
2 LINE ALUMINUM RAILING DETAILS
135

REVISED BY 05-21-2017 BY G.L.R. CS:\USER\RD\TJWA\05K710P571.2 LINE RAILING DET - REV1.DWG



Proposal Schedule of Items

Proposal ID: 20171212012 Project(s): 2195-03-70

Federal ID(s): WISC 2018009

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0034	505.0600 Bar Steel Reinforcement HS Coated Structures	21,460.000 LB	_____.	_____.
0036	506.3005 Welded Stud Shear Connectors 7/8x4-Inch	496.000 EACH	_____.	_____.
0038	506.3015 Welded Stud Shear Connectors 7/8x6-Inch	264.000 EACH	_____.	_____.
0042	509.1000 Joint Repair	69.000 SY	_____.	_____.
0044	509.1500 Concrete Surface Repair	339.000 SF	_____.	_____.
0046	509.5100.S Polymer Overlay	625.000 SY	_____.	_____.
0048	509.9025.S Epoxy Injection Crack Repair	408.000 LF	_____.	_____.
0050	509.9026.S Cored Holes 2-Inch Diameter	2.000 EACH	_____.	_____.
0052	516.0500 Rubberized Membrane Waterproofing	11.000 SY	_____.	_____.
0054	517.0600 Painting Epoxy System (structure) 001. B-40-544	LS	LUMP SUM	_____.
0056	517.0900.S Preparation and Coating of Top Flanges (structure) 001. B-40-544	LS	LUMP SUM	_____.
0058	517.1010.S Concrete Staining (structure) 001. B-40-544	5,373.000 SF	_____.	_____.
0060	517.1800.S Structure Repainting Recycled Abrasive (structure) 001. B-40-544	LS	LUMP SUM	_____.
0062	517.3000.S Structure Overcoating Cleaning and Priming (structure) 001. B-40-544	LS	LUMP SUM	_____.



Proposal Schedule of Items

Proposal ID: 20171212012 Project(s): 2195-03-70

Federal ID(s): WISC 2018009

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0232	SPV.0165 Special 501. FIBERGLASS SIDEWALK FLOOR PLATES	1,776.000 SF	_____.	_____.
0234	SPV.0165 Special 502. METAL PLATES FOR BIKE LANES	443.000 SF	_____.	_____.
0236	SPV.0180 Special 001. JOINT SEALING	200.000 SY	_____.	_____.
0238	SPV.0025 Special 501. Concrete Surface Repair At Railing Post	95.000 CF	_____.	_____.
Section: 0001			Total:	_____.
			Total Bid:	_____.